Amendments To The Claims:

Please amend the claims as follows.

1 – 38 (Canceled).

39. (Previously presented) A method for controlling the castability of liquid steel, the method comprising:

selecting a pair of alloying elements from the group consisting of Si/O_2, S/O_2, Al/O_2, S/C, and N/C;

establishing a first range of relative concentration limits ~~for~~ specific to the ~~at least two elements~~ pair of alloying elements ~~of~~ in a melt such that a subsequent casting of the melt ~~will~~ is likely to exhibit acceptable mechanical properties;

establishing a second range of relative concentration limits ~~for~~ specific to the ~~at least two elements~~ pair ~~of the melt~~ of alloying elements as a subset of the first range of relative concentration limits such that a subsequent casting of the melt is further likely to be castable; and

casting the melt while controlling chemistry of the melt to within the second range of relative concentration limits.

40. (Canceled)

41. (Canceled)

42. (Canceled)

43. (Currently Amended) The method of claim 39, further comprising:

displaying the first range on a graph illustrating concentrations of a first element of the pair along a first axis and concentrations of a second element of the pair along a second axis;

displaying the second range on the graph as a sub-area of the first range; and

displaying a measured relative concentration of the first and second elements of the pair in the melt as a point on the graph.

44. (Previously presented) The method of claim 39 used in a thin-strip continuous casting machine according to a twin-roller casting process.

45. (New) The method of claim 39, further comprising casting a steel melt having a measured relative concentration of the selected pair of alloying elements, and treating the steel melt by increasing an amount of a first element from the pair if the measured relative concentration of the selected pair of alloying elements falls outside the second range.

46. (New) The method of claim 39, wherein a second range of relative concentration limits is established for each pair of alloying elements selected from the group consisting of Si/O_2, S/O_2, Al/O_2, S/C, and N/C, and further comprising casting a steel melt comprising each pair of alloying elements having relative concentration limits within a respective established second range for each pair of alloying elements.